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EXAMINER	
SHAH, PARAS D	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,242	HAMALAINEN ET AL.	
	Examiner	**Art Unit**	
	PARAS SHAH	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,16-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 16-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Amendments and Arguments filed on 10/16/2008. Claims 1-6, and 16-33 remain pending and have been examined. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance. Accordingly, this action has been made FINAL.

2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Response to Arguments

3. Applicant's arguments (page 8-10) filed on 10/16/2008 with regard to claims 1, 6-33 have been fully considered but they are moot in view of new grounds for rejection (see below itemized rejections).

Specifically, the Applicants argue that decoding the loop sections several times in a row during playback is difficult in prior art due to the evolving state of the decoder. Further, it is asserted that Wiggins fails to suggest the saving and restoring as recited in steps a and b. Such assertions are respectively moot in view of the newly added reference. Further, the Applicants assertion that a sufficient motivation has not been provided is also respectfully traversed. The Applicant has not provided reasons as to why the provided motivation is not sufficient but rather points out that the combination does not solve the problem as mentioned by the Applicant.

Response to Amendment

4. Applicants' amendments filed on 10/16/2008 have been fully considered. The newly amended limitations in claims 1, 3, and 6, and 16-33 necessitate new grounds of rejection. Specifically, they newly added limitations of "said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements" and "each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback" necessitates new grounds for rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-6, 16-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole, Patent No.: US 5,890,115 ("COLE"), in view of Wiggins, Jr. et al., Patent No.: 4,304,964 ("WIGGINS") in view of Maher ("Compression and Decompression of Wavetable Synthesis Data).

7. Regarding **claim 1**, COLE teaches a method comprising:

a) decoding consecutive frames of said encoded wavetable data ("the wavetable synthesizer 700 processes voices in frames", COLE, column 14, lines 41-42) comprising samples in an attack section ("an attack stage", COLE, column 13, line 55) and samples in a loop section ("a sustain stage", COLE, column 13, line 55) starting with a first frame up to a frame which includes a start of said loop section ("step directly through the stored data", COLE, column 18, lines 18-19) which samples of said loop section may be reused for a playback in a loop as often as required ("loop through some range of data" and looping of repetitive data, COLE, column 18, line 19-30); and

c) decoding subsequently all frames comprising samples of said loop section ("loop through some range of data", COLE, column 18, line 19) and providing said decoded frames for further processing for a playback ("playing back of digital files", COLE, column 18, line 30).

However, COLE does not disclose steps b) and d).

In the same field of speech synthesis, WIGGINS teaches:

b) saving an internal state of said audio decoder before starting to decode said frame including the start of said loop section a first time("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21, e.g. identifies that speech state is present); and

d) at least if said samples of said loop section are distributed to more than one frame ("a repeat frame is used", WIGGINS, column 16, line 18), restoring said internal state of said audio decoder, saved at step b) ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to save speech parameters as taught by WIGGINS during the loop sections of COLE in order to reduce the data rate (WIGGINS, column 2, line 34).

However, COLE in view of Wiggins does not disclose said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements and each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback".

In the same field of speech synthesis, Maher does teach a.)said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames (see page 6, sect. 5.1, last paragraph of section and Figure 5, the current and prior sample is taken into consideration for the encoding) for increased compression performance and reduced memory requirements (see Abstract, efficient compression and reducing wavetable size).

d) each time starting from the saved internal state (see page 7, sect. 5.2.2, 1st paragraph, the last value of the accumulator is saved) so that instead of starting with an internal state of the decoder at the end of the loop section (see page 7, sect. 5.2.2, 1st paragraph, samples used for next block not internal state at end), each decoding of said

loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback (see page 7, sect. 5.2.2, 1st paragraph, the last value is saved and used in next block so is correlated with previous set of samples in the block.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to encode consecutive frames interdependently and each time starting from a saved internal state as taught by Maher during the loop sections of COLE in order to achieve efficient compression and reduction in wavetable data size (See Maher, Abstract).

8. Regarding **claim 2**, WIGGINS further teaches that each decoded frame is stored for said further processing by substituting a preceding frame in a storage component ("a repeat frame is used", WIGGINS, column 16, line 18), and wherein a respective next frame is only decoded at a time when samples of a further frame are needed (see WIGGINS, FIG. 6, decoding continues when a frame other than the "repeat frame" is sent).

9. Regarding **claim 3**, COLE teaches a device comprising:

an audio decoder for receiving wavetable data ("the wavetable synthesizer 700 processes voices in frames" COLE, column 14, lines 41-42) each frame comprising at least one sample ("one sample period is called a frame", COLE, column 10, line 45), wherein said encoded wavetable data may comprises samples in an attack section ("an

attack stage", COLE, column 13, line 55) and samples in a loop section ("a sustain stage", COLE, column 13, line 55), which samples of said loop section are reusable for a playback in a loop as often as required ("loop through some range of data", COLE, column 18, line 19);

a storage component for saving an internal state of said audio decoder ("register array 718", COLE, column 18, line 3); and

a controller ("control logic 732", COLE, column 18, lines 12-13), which controller causes said audio decoder to decode subsequently all frames comprising samples of said loop section ("loop through some range of data", COLE, column 18, line 19) and to provide said decoded frames for further processing for a playback ("playing back of digital files", COLE, column 18, line 30) ... and to repeat decoding subsequently all frames comprising said samples of said loop section ("loop through some range of data", COLE, column 18, line 19).

However COLE does not disclose saving or restoring an internal state of the audio decoder. In the same field of speech synthesis, WIGGINS teaches saving an internal state of an audio decoder into a storage component ("ROM 203", WIGGINS, column 16, line 51) before decoding a next frame ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21), if said next frame includes a start of a loop section ("a repeat frame is used", WIGGINS, column 16, line 18), and restoring said internal state saved in said storage component ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to save speech parameters as taught by WIGGINS during the loop sections of COLE in order to reduce the data rate (WIGGINS, column 2, line 34).

However, COLE in view of Wiggins does not disclose said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements and each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback".

In the same field of speech synthesis, Maher does teach said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames (see page 6, sect. 5.1, last paragraph of section and Figure 5, the current and prior sample is taken into consideration for the encoding) for increased compression performance and reduced memory requirements (see Abstract, efficient compression and reducing wavetable size).

each repeated decoding starting from the saved internal state (see page 7, sect. 5.2.2, 1st paragraph, the last value of the accumulator is saved) so that instead of starting with an internal state of the decoder at the end of the loop section (see page 7, sect. 5.2.2, 1st paragraph, samples used for next block not internal state at end), each

decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback (see page 7, sect. 5.2.2, 1st paragraph, the last value is saved and used in next block so is correlated with previous set of samples in the block.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to encode consecutive frames interdependently and each time starting from a saved internal state as taught by Maher during the loop sections of COLE in order to achieve efficient compression and reduction in wavetable data size (See Maher, Abstract).

10. Regarding **claim 4**, COLE further teaches a second storage component ("wavetable memory 610", COLE, column 18, lines 62-63) for storing the respective last decoded frame provided by said audio decoder ("a first sample ... addressed by the current synthesizer address register", COLE, column 18, lines 62-64) and for providing samples of a respectively stored frame for further processing for a playback ("playing back of digital files", COLE, column 18, line 30).

11. Regarding **claim 5**, COLE teaches a wavetable based sound synthesis system comprising:

an audio encoder for encoding a wavetable on a frame-by-frame basis ("the wavetable synthesizer 700 processes voices in frames" COLE, column 14, lines 41-42) and for providing resulting wavetable data ("the wavetable synthesizer 700 processes voices in frames", COLE, column 14, lines 41-42);

an audio decoder decoding received wavetable data on a frame-by-frame basis ("the wavetable synthesizer 700 processes voices in frames", COLE, column 14, lines 41-42), each frame comprising at least one sample ("one sample period is called a frame", COLE, column 10, line 45), wherein said encoded wavetable data may comprise samples in an attack section ("an attack stage", COLE, column 13, line 55) and samples in a loop section ("a sustain stage", COLE, column 13, line 55), which samples of said loop section may be reused for a playback in a loop as often as required ("loop through some range of data", COLE, column 18, line 19);

a second storage component for saving an internal state of said audio decoder ("register array 718", COLE, column 18, line 3); and

a controller ("control logic 732", COLE, column 18, lines 12-13), which controller causes said audio decoder to decode subsequently all frames comprising samples of said loop section ("loop through some range of data", COLE, column 18, line 19) and to provide said decoded frames for further processing for a playback ("playing back of digital files", COLE, column 18, line 30) … and to repeat decoding subsequently all frames comprising said samples of said loop section ("loop through some range of data", COLE, column 18, line 19).

However COLE does not disclose saving or restoring an internal state of the audio decoder. In the same field of speech synthesis, WIGGINS teaches saving an internal state of an audio decoder into a storage component ("ROM 203", WIGGINS, column 16, line 51) before decoding a next frame ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21), if said next frame includes a start of a loop section ("a repeat frame is used", WIGGINS, column 16, line 18), and restoring said internal state saved in said storage component ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to save speech parameters as taught by WIGGINS during the loop sections of COLE in order to reduce the data rate (WIGGINS, column 2, line 34).

However, COLE in view of Wiggins does not disclose said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements and each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback".

In the same field of speech synthesis, Maher does teach said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to

neighborhood frames (see page 6, sect. 5.1, last paragraph of section and Figure 5, the current and prior sample is taken into consideration for the encoding) for increased compression performance and reduced memory requirements (see Abstract, efficient compression and reducing wavetable size).

each repeated decoding starting from the saved internal state (see page 7, sect. 5.2.2, 1st paragraph, the last value of the accumulator is saved) so that instead of starting with an internal state of the decoder at the end of the loop section (see page 7, sect. 5.2.2, 1st paragraph, samples used for next block not internal state at end), each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback (see page 7, sect. 5.2.2, 1st paragraph, the last value is saved and used in next block so is correlated with previous set of samples in the block.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to encode consecutive frames interdependently and each time starting from a saved internal state as taught by Maher during the loop sections of COLE in order to achieve efficient compression and reduction in wavetable data size (See Maher, Abstract).

12. Regarding **claim 6**, COLE teaches a software program product in which a software code for supporting a wavetable based sound synthesis is stored, for which wavetable based sound synthesis wavetable data is encoded in consecutive frames and

is decoded by means of an audio decoder decoding received wavetable data on a frame-by-frame basis ("the wavetable synthesizer 700 processes voices in frames", COLE, column 14, lines 41-42) sample ("one sample period is called a frame", COLE, column 10, line 45), wherein said encoded wavetable data may comprise samples in an attack section ("an attack stage", COLE, column 13, line 55) and samples in a loop section ("a sustain stage", COLE, column 13, line 55), which samples of said loop section may be reused for a playback in a loop as often as required ("loop through some range of data", COLE, column 18, line 19), said software code realizing the following steps when running in a processing component which is connected to said audio decoder:

causing said audio decoder to decode subsequently all frames comprising samples of said loop section ("loop through some range of data", COLE, column 18, line 19) and to provide said decoded frames for further processing for a playback ("playing back of digital files", COLE, column 18, line 30) ... and to repeat decoding subsequently all frames comprising said samples of said loop section ("loop through some range of data", COLE, column 18, line 19); and.

However COLE does not disclose saving or restoring an internal state of the audio decoder. In the same field of speech synthesis, WIGGINS teaches saving an internal state of an audio decoder into a storage component ("ROM 203", WIGGINS, column 16, line 51) before decoding a next frame ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21), if said next frame includes a start of a loop section ("a repeat frame is used", WIGGINS, column 16, line

18), and restoring said internal state saved in said storage component ("the K1-K10 coefficients previously inputted remain unchanged", WIGGINS, column 16, lines 20-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to save speech parameters as taught by WIGGINS during the loop sections of COLE in order to reduce the data rate (WIGGINS, column 2, line 34).

However, COLE in view of Wiggins does not disclose said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames for increased compression performance and reduced memory requirements and each time starting from the saved internal state so that instead of starting with an internal state of the decoder at the end of the loop section, each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback".

In the same field of speech synthesis, Maher does teach said consecutive frames encoded interdependently to exploit correlations between audio samples with respect to neighborhood frames (see page 6, sect. 5.1, last paragraph of section and Figure 5, the current and prior sample is taken into consideration for the encoding) for increased compression performance and reduced memory requirements (see Abstract, efficient compression and reducing wavetable size).

each repeated decoding starting from the saved internal state (see page 7, sect. 5.2.2, 1st paragraph, the last value of the accumulator is saved) so that instead of

starting with an internal state of the decoder at the end of the loop section (see page 7, sect. 5.2.2, 1st paragraph, samples used for next block not internal state at end), each decoding of said loop section starts with a same correlation with respect to neighborhood flames as saved the first time. so as to always resemble a same stationary waveform in said playback (see page 7, sect. 5.2.2, 1st paragraph, the last value is saved and used in next block so is correlated with previous set of samples in the block.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to encode consecutive frames interdependently and each time starting from a saved internal state as taught by Maher during the loop sections of COLE in order to achieve efficient compression and reduction in wavetable data size (See Maher, Abstract).

13. As to **claims, 16 and 23**, COLE in view of WIGGINS in view of MAHER all of the limitations as in claims 1 and 3, above.

Furthermore, WIGGINS teaches wherein interdependence between said neighborhood frames is reflected together with other control information in a number of variables that constitute said internal state of said audio decoder (see col. 15, lines 49-64 and col. 16, lines 18-20, pitch and energy parameter are being coded and when realized translate in control information to indicate a voice or unvoiced frame denoting a internal state change).

14. As to **claims 17, 20, 24, and 27**, COLE in view of WIGGINS in view of MAHER all of the limitations as in claims 1 and 3, above.

Furthermore, WIGGINS teaches wherein said internal state of said audio decode keeps track of correlation between samples (see col. 16, lines 15-25, the internal state of whether there is a voiced frame or an unvoiced frame is realized and appropriate processing is performed, i.e. insert of a repeat frame, while the coefficients remain unchanged. The correlation of samples is determined as the noting of unvoiced or voiced frame.).

15. As to **claims 18, 21, 25, and 28**, COLE in view of WIGGINS in view of MAHER all of the limitations as in claims 1 and 3, above.

Furthermore, COLE teaches wherein said decoding is a decoding of one sample at a time (see col. 13, lines 18-20, col. 14, lines 40-47, where each voice is individually processed by the synthesizer).

Furthermore, Wiggins teaches said decoded frames depend not only on an encoded input sample value but also on said internal state of said decoder (see col. 15, lines 40-60, col. 16, lines 7-26, processing of the parameters indicate a state of the decoder, regarding whether spoken speech or unvoiced segment is found.).

16. As to **claims 19, 22, 26, and 29**, COLE in view of WIGGINS in view of MAHER all of the limitations as in claims 1 and 3, above.

Furthermore, COLE teaches wherein said frames have a length of only one sample (see coll. 10, lines 45-46, one sample period is called a frame and decoding in col. 14, lines 45-47).

17. As to **claims 30-33**, COLE in view of WIGGINS in view of MAHER all of the limitations as in claims 1, 3, 5, and 6, above.

Furthermore, COLE teaches the decoding of wavetable data (see col. 18, lines 16-30)

Furthermore, WIGGINS teaches wherein said internal state of said decoder evolves during the decoding process so that the internal state of the audio decoder at the end of the loop is different from its state at the beginning of the loop (see col. 15, lines 40-60, the cited section describes the pitch code representation for various possible states (speech, unvoiced), which changes based on pitch and energy data inputted into synthesizer.) (e.g. The decoder state changes based on the input parameters of pitch and energy, where the input is speech containing pauses and unvoiced segments).).

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gulick (SU 5,809,342) is cited to disclose a wavetable music synthesizer. Wang (US 6,124,542) is cited to disclose sound sampling synthesis comprising encoding and decoding based on polynomials. Lindemann (US 6,316,710) is cited to disclose a musical synthesizer storing sound segments for playback. Cheng (US 6,643,744) is cited to disclose pre-fetching of audio data using a wavetable cache. Fay (US 7,126,051) is cited to disclose wave data playback in a audio generation system. Hsieh (US 7,253,352) is cited to disclose playback of music files based on tones.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paras Shah/
Examiner, Art Unit 2626

01/29/2009

/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626